

ORIGINAL ARTICLE

Low Body Mass Index Is Associated with a Positive Response during a Head-Up Tilt Test

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Keywords:

syncope; vasovagal syncope; body mass index; head-up tilt table test

Background: To describe the association between body mass index (BMI) and a positive response during a head-up tilt test (HUT) in patients referred for an investigation of syncope.

Methods: Observational study of patients referred for the diagnostic evaluation of syncope. Patients were divided into four groups according to their BMI: <18.5 kg/m², 18.5–24.9 kg/m², 25–29.9 kg/m², and > 30 kg/m².

Results: A total of 419 patients were evaluated. The mean age was 43 ± 22 years, and 62% were female. The prevalence of a positive tilt test was different between groups when stratified by BMI ($P = 0.01$), with a higher proportion of patients with positive tests among those with BMI <18.5 kg/m² compared with other groups ($P = 0.05$). Multivariate analysis also showed that underweight patients had a 3.9 times higher risk for a positive HUT response ($P = 0.01$); additionally, the use of contraceptive drugs was associated with a protective effect during HUT (odds ratio: 0.35, confidence interval: 0.19–0.45, $P = 0.001$).

Conclusion: In our sample, changes in BMI are associated with a positive response for HUT, and oral contraceptives seemed to protect against this response. Further studies are needed with larger numbers of patients to corroborate this finding.

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